

L 1899-66 ENT(1)/ENT(2)/FCC/THA(b)  
ACC NR: AP6011119

SOURCE CODE: UR/0362/65/001/012/1299/1309

AUTHOR: Styra, B. I.—Styra, B. J.; Vebra, E. Yu.—Vebra, E. J.; Shopauskas, K. K.

ORG: none

TITLE: Determination of some parameters of removal of natural radioactive aerosols  
from the airSOURCE: AN SSSR. Izvestiya. Fizika atmosfery i okeana, v. 1, no. 12, 1965, 1299-  
1309TOPIC TAGS: atmospheric radioactivity, atmospheric cloud, gas filter, radioactive  
aerosolABSTRACT: The authors describe a method for measuring the radioactivity of  
air in the free atmosphere and within cloud systems by its filtration  
through porous filters and the screening of drops. The actual method  
was described in a previous paper by the author (Tr. AN LitSSR, Seriya  
B, 1(36), 1964). The authors have developed the theory of the experiment  
and derived formulas for computing the parameter of nonradioactive re-  
moval  $\Lambda$  of radioactive aerosols in cloud droplets. Two methods are pro-  
posed for determining  $\Lambda$ : on the basis of the profile of the concentra-  
tion of radioactive substances in the air in a cloud and outside it and  
on the basis of disruption of radioactive equilibrium between the daughter  
products of radon decay in the cloud zone. On the basis of  $\Lambda$  and data  
in the literature on the drop concentration in a cloud the authors have  
computed the value of the coagulation coefficient  $K$  of radioactive19  
34  
B  
UDC: 551.510.721

Card 1/2

orig. art. has: 4 figures, 21 formulas  
SUB APPROVED FOR RELEASE: 08/26/2000 1 CIA-RDP86-00513R001653710015-2"  
SUBM DATE: 12Jun65 / ORIG REF: 009 / OTH REF: 002

Card 2/2 inc.

ACC NR: AP6034772 (A) SOURCE CODE: UR/0362/66/002/010/1055/1063

AUTHOR: Styro, B. I.; Vebrene, B. K.

ORG: none

TITLE: Preliminary results and methods of measuring radioactivity of particles of precipitation

SOURCE: AN SSSR. Izvestiya. Fizika atmosfery i okeana, v. 2, no. 10, 1966, 1055-1063

TOPIC TAGS: radioactivity, <sup>measurement</sup> meteorology, evaporation rate, ~~particles~~, ~~precipitation~~ rain, snow, radioactive fallout, atmospheric radioactivity

ABSTRACT: This article describes the method of measuring the radioactivity of raindrops and snowflakes by capturing them on polished steel plates or chromatographic filter paper with subsequent contact with an emulsion. The number of nonradioactive raindrops during a continuous rain, based on a computed measurement angle of  $2\pi$  was found to be equal to 30—40% of the total number of raindrops. The radioactivity of individual raindrops generally increases with size with the rate of increase leveling off. It is shown that the specific radioactivity of raindrops increases exponentially with decreasing

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UDC: 551.510.7

ACC NR: AP6034772

droplet size. Based on this, a computation of the mean value of the relative rate of evaporation of raindrops falling to the earth's surface is made possible. Orig. art. has: 3 figures, 3 tables, and 8 formulas.

SUB CODE:04/18/ SUBM DATE: 26Feb66/ ORIG REF: 009/ OTH REF: 004

Card 2/2

ACC NR: AP6034790

SOURCE CODE: UR/0251/66/043/002/0327/0334

AUTHORS: Styro, B. I.; Vebra, E. Yu.; Shopauskas, K. K.; Khundzhua, T. G.

ORG: Institute of Geophysics, Academy of Sciences Georgian SSR (Institut geofiziki  
Akademiya nauk Gruzinskoy SSR)TITLE: On the problem of determining the coefficient of turbulent diffusion along  
vertical concentration profiles of radon decay products

SOURCE: AN GruzSSR. Soobshcheniya, v. 43, no. 2, 1966, 327-334

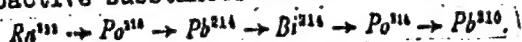
TOPIC TAGS: atmospheric diffusion, radon, free atmosphere, atmospheric turbulence,  
alpha particle, nuclear emulsion, aircraft/ A-2 nuclear emulsion, Li-2 aircraft,  
Yak-12 aircraftABSTRACT: An experimental method for determining  $K_z$  along radioactivity profiles in  
the free atmosphere is described. For a layer of free atmosphere, it is assumed that  
the vertical distribution of the concentration of the  $i$ -th element of the radon chain  
is determined by solving a system of differential equations

$$\frac{d}{dz} \left( K_z \frac{dN_1}{dz} \right) - \lambda_1 N_1 = 0,$$
$$\frac{d}{dz} \left( K_z \frac{dN_i}{dz} \right) - \lambda_i N_i + \lambda_{i-1} N_{i-1} = 0.$$

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ACC NR: AP6034790

The following chain of radioactive substances is considered:



Equations describing the profiles of the distribution of radon and three of its decay products are obtained:

$$N_1 = \lambda_1 N_{108} \sum_{k=1}^4 \frac{\prod_{i=1}^{k-1} \lambda_i}{\lambda_1 \prod_{i=1}^{k-1} (\lambda_k - \lambda_i) \prod_{i=k+1}^4 (\lambda_k - \lambda_i)} \exp \left\{ - \sqrt{\frac{\lambda_1}{K_s}} (z - h) \right\},$$

$\gamma = 1, 2, 3, 4$

In the experimental part, the free atmosphere is obtained by filtering air through fibrous materials. A-2 nuclear emulsion is used as the detector. The atmosphere was sounded in the areas of Tbilisi and Vilnius with LI-2 and YAK-12 aircraft. The radioactivity was measured according to the number of alpha tracks/cm<sup>2</sup> of emulsion (see Fig. 1). The advantages of the method are simplicity and high sensitivity. This paper was presented by Academician F. F. Davitaya on 06 November 1965.

Card 2/3

ASHCHEULOV, S. V.; STYRO, D. B.

"Comparison of measured and calculated infrared emission spectrum of the atmosphere."

report presented at the Atmospheric Radiation Symp, Leningrad, 5-12 Aug 64.

L 16980-66 EWT(1) GW  
ACC NR: AP6002348

SOURCE CODE: UR/0054/65/000/004/0080/0086

AUTHORS: Kondrat'yev, K. Ya.; Ashcheulov, S. V.; Styro, D. B.

39  
33  
B

ORG: none

TITLE: A comparison of measured and computed spectra of natural atmospheric radiation

SOURCE: 18/44:57  
Leningrad, Universitet. Vestnik. Seriya fiziki i khimii, no. 4, 1965, 80-86

TOPIC TAGS: atmospheric radiation, radiation spectrum, spectrophotometer, black body radiation

ABSTRACT: 18/44:57  
A portable IR spectrophotometer for measuring natural atmospheric radiation was developed at the Department of Atmospheric Physics of Leningrad University. The device is described briefly in the paper, and the optical system is illustrated in Fig. 1. The principal difficulty in using the instrument was calibration; measurement of small values also proved to be a problem. Measured values were compared with computed values, and it was found that the radiation bands of water vapor ( $6.3\mu$ ), carbon dioxide ( $15\mu$ ), and, in the range

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UDC: 551.521.32

L 16980-66

ACC NR: AP6002348

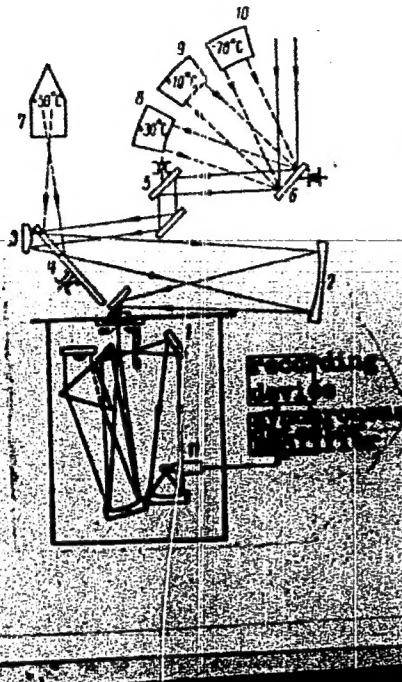


Fig. 1. Optical system of an IR field spectrometer. 1 - Prism monochromator; 2,3 - focusing mirrors; 4 - mirror modulator; 5, - coelostat mirror; 7 - referent black body; 8,10 - calibrating black body; 11 - optional pyroelectric detector.

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L 16980-66  
ACC NR: AP6002348

from 15 to 25  $\mu$ , atmospheric radiation coincide with black body values. This is explained by the almost perfect transparency of the atmosphere in these parts of the spectrum. In the range 8 to 13  $\mu$ , the values differ appreciably, the difference declining as the angle of observation approaches the horizontal. It is concluded that theoretical considerations cannot properly evaluate the effect of the numerous emitters affecting the value of total radiation in the latter spectral range. Orig. art. has: 5 figures, 1 table, and 7 formulas.

SUB CODE: 04/ SUBM DATE: 100ct64/ ORIG REF: 003/ OTH REF: 008

Card 3/3 vmb

L 22151-66 EWT(1) GW  
ACC NR: AF6012929

SOURCE CODE: UR/0362/66/002/001/0052/0063

27

B

AUTHOR: Kondrat'yev, K. Ya.--Kondratiev, K. Y.; Styro, D. B.; Khvorostov, V. V.

ORG: Leningrad State University

TITLE: Radiant heat flux in the spectral region 4-40  $\mu$ m at different levels in the atmosphere

SOURCE: AN SSSR. Izvestiya. Fizika atmosfery i okeana, v. 2, no. 1, 1966, 52-63

TOPIC TAGS: atmospheric thermodynamics, earth radiation, atmospheric radiation, troposphere, atmospheric temperature, atmospheric humidity, atmospheric transparency

ABSTRACT: The authors have analyzed the results of computations of the intensity of the ascending and descending fluxes of radiation at different isobaric levels. The intensity of ascending radiation varies from 700 ("window of transparency") to  $50 \mu \text{W cm}^{-2} \text{sr}^{-1} \mu \text{m}^{-1}$  (absorption band of water vapor with a center at about  $6.3 \mu\text{m}$ ) at the "upper boundary" of the atmosphere. For descending radiation the limits of variation are broader: from 600 (absorption band of carbon dioxide with a center at  $14.3 \mu\text{m}$ ) at the level of the earth's underlying surface to  $10^{-5} \mu \text{W cm}^{-2} \text{sr}^{-1} \mu \text{m}^{-1}$  (window of transparency) at a height of 28 km. At the "upper boundary" of the atmosphere about 90% of the total radiation is accounted for by radiation of the underlying surface in the range of wavelengths 8-13  $\mu\text{m}$  (an exception is

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ACC NR: AP6012929

the absorption band of ozone). The authors also compared the values of change of intensity of ascending radiation at the time of transmission through individual layers of the atmosphere for an arbitrarily selected meteorological situation with data computed using the standard model ARDC-1959. The discrepancies of the results for the lower part of the troposphere in the region of strong water vapor absorption are attributed to a different stratification of temperature and humidity. A study also was made of the values of the radiant heat flux in the atmosphere in the spectral region 4-40  $\mu$  m at different isobaric levels for individual spectral intervals and for the entire range. In individual spectral intervals, related to the strong absorption bands, it is possible to observe both a decrease and an increase of the radiant heat flux at different isobaric levels in the atmosphere. In the considered case there was a cooling of the atmosphere in all spectral intervals. The values of the radiant heat flux are dependent primarily on atmospheric transparency and also on the quantity of energy falling in the investigated intervals of wavelengths. For a more detailed study of the radiation heat flux and its individual components in the atmosphere it is necessary to investigate narrower intervals of wavelengths in the region 4-40  $\mu$  m and also take into account the influence of other absorbers. An important problem is the study of the variations of the radiant heat flux caused by changes of atmospheric stratification. Orig. art. has: 10 figures and 4 formulas. [JPRS]

SUB CODE: 04 / SUBM DATE: 07Jun65 / ORIG REF: 004 / OTH REF: 005

Card 2/2 da

TYu, Roloslav Ivanovich, gosudar. fiz.-matem. russk; Fizika VM,  
I.Ä., p. 1.

[Izotopy originate in the atmosphere] izotopy v zondirovani  
v atmosfere. Moskva, izd-vo "Znanie," 1964. 25 p. (Kvye  
v znanii, nauci, tekhnike. II Serija: Fizika, matematika,  
astronomija, no.18) (Vid. 17:10)

STYROV, N.

That's the way millions economize. Sov. profsoiuzy 6 no.3:39-41 Mr  
'58. (MIRA 11:3)

1. Predsedatel' komiteta profsoyuza Moskovskogo zavoda imeni  
Vladimira Il'icha. (Moscow--Machinery industry)

STYROV, N.

Students in the factory shops. Sov.profsciuz 6 no.17:26-28  
(MIRA 12:1)  
D '58.  
(Vocational education)

STYROV, N.

Watching over workers' health. Okhr. truda i sots. strakh. no. 8:40-44  
(MIRA 12:11)  
Ag '59.

1. Predsedatel' zavkoma profsoyuza Moskovskogo zavoda imeni Vladimira  
Il'icha.  
(Moscow--Industrial hygiene)

SYSOYEV, Nikolay Dmitriyevich; STYROV, P.D., red.; AFANAS'YEVA, K.L.,  
red.; LEONOVA, L.P., tekhn.red.

[Nature of our territory; flora and fauna of Vladimir Province]  
Priroda nashego kraia; o zhivotnom i rastitel'nom mire Vladimirovskoi oblasti. Vladimir, Vladimirovskoe knizhnoe izd-vo, 1960.  
(MIRA 14:4)

127 p.  
(Vladimir Province--Natural history)

KARLIC, Stanislaw; STYS, Jozef

Again, on the prototype of the new Polish WOS-1200 boring  
machine. *Wiad naft* 6 no.1:16-18 '60.  
(EEAI 9:6)  
(Poland-- Boring machinery)

STYS, Jozef

GoPw flush heads. Wiad naft 6 no.6:129-133 Je '60.  
(Poland--Boring machinery)

(EEAI 9:10)

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ACCESSION NR. AP5000508

SUB CODE: IC

Card 2/2

APPROVED FOR RELEASE: 08/26/2000

CIA-RDP86-00513R001653710015-2"

STYS, P.

SCIENCE

Periodicals: Ceskoslovenska spolecnost entomologicka. CASOPIS. ACTA  
SOCIETATIS ENTOMOLOGICAE CECHOSLOVENIAE Vol. 52, 1955

STYS, P. The genus Hydrometra gracilenta Horv. p. 161

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No.5,  
May, Unclass. 1959

STYS, P.

CZECHOSLOVAKIA/ Special and General Zoology - Insects.

0-3

Abs Jour : Referat Zhur - Biologiya, No 16, 1957, 69697

Author : Stys, P.

Inst :  
Title : A Preliminary Report on the Study of the Insect Fauna of  
the Rykhlebsk Mountains in 1955.

Orig Pub : Prirodoved. sbor. Ostravskeho kraje, 1956, 17, No 3,  
424-425

Abstract : No abstract.

Card 1/1

- 7 -

"APPROVED FOR RELEASE: 08/26/2000

CIA-RDP86-00513R001653710015-2

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CIA-RDP86-00513R001653710015-2"

STYS, P.

The Czechoslovak population of *Notonecta reuteri* Hungerford, 1928  
(Hem., Notonectidae). Cas entom 57 no.2:129-135 '60. (EEAI 10:1)

1. Chair of Systematic Zoology, Charles University, Prague.  
(Heteroptera)  
(Czechoslovakia--Notonecta)

STYS, Pavel, dr.

Venation of metathoracic wings of the family Microphysidae  
(Heteroptera) and notes on its relation to other families. Cas  
entom 59 no.3:234-239 '62.

1. Department of Systematic Zoology, Charles University, Praha 2,  
Vinicna 7.

STYS, P. (Praha, 2, Vinicna 7, Czechoslovakia)

The morphology and relationship of the family Hyocephalidae  
(Heteroptera). Acta zool Hung 10 no. 1/2:229-262 '64.

1. Department of Systematic Zoology, Charles University,  
Praha. Director: Prof. Dr. E. Bartos.

STYŠ, Javel, ČSS.

On the morphology and taxonomy of Agriopocorinae (Heteroptera, Coreidae). Čas entom 61 no.1:25-38 '64.

1. Katedra systematicke zoologie, Praha 2, Vinicna 7.

STYS, Pavel, dr. (Praha 2, Vinicna 7)

Thaumastellidae, a new family of pentatomoid Heteroptera. Cas  
entom 61 no.3:238-253 '64.

1. Department of Systematic Zoology, Charles University, Prague.

Hrdy, I.; Kunšt, M.; Hovolny, D.; Stys, P.; Zelený, J.

"Zoology for students of Pedagogic Institutes" by J. Lang, V. Kocian,  
C. Pravda. Pt. 1. Reviewed by I. Hrdy, M. Kunšt, D. Hovolny, P. Stys,  
J. Zelený. Cas entom. 61 no. 2: 195-200 '64.

STYS, Stanislaw, inz.

Biologic restoration of waste lands in the brown coal districts of  
Czechoslovakia. Uhli 3 no.11:372-376 N '61.

1. Banske projekty, Teplice.

STYS, Stanislav, inz.; TREFNY, Vlastimil, inz.

Selective stripping of the overburden and rehabilitation of areas devastated by mining in the North Bohemia lignite basin. Uhli 4 no.11:379-383 N '62.

1. Banske projekty, Teplice.

STYS, Stanislav, ina.

International symposium on rehabilitation of devastated land.  
Uhli 4 no.12:428-429 D '62.

1. Banske projekty, Teplice,

STYS, Stanislav, inz.; TREFNY, Vlastislav, inz.

Importance of the shape of pit heaps for recultivation. Uhli  
5 no.8:267-272 Ag '63.

1. Sdruzeni Severooceskych hnedenouhelnych dolu, Most (for Stys).
2. Banske projekty, Teplice lazne v Cechach (for Trefny).

STK, I. (Warsaw,

The Hopf theorem for a certain elliptic system of second-order linear differential equations. Prace matem. Krakow 8 no.2:143-146 '64.

MALEK, Prokop; Technicka spoluprace: JEHLIKOVÁ, M.; SKULOVÁ, M.;  
STYS, V.

Dynamics of circulation of substances in the organism during  
shock. Cas. lek. česk. 95 no.17:449-454 27 Apr 56.

1. Ustav klinicke a experimentalni chirurgie, Praha.

(SHOCK, experimental

hemodynamics of procaine penicillin in animals. (Cz))

(PENICILLIN, derivatives

procaine penicillin, hemodynamics in expr. shock in  
animals. (Cz))

PETRLIK, Zdenek, inz.; STYS, Zdenek

Examination of new products and methods for controlling the hop  
Peronospora. Vest vyzk zemedel 9 no.12:544 '62.

1. Vyzkumny ustav chmelarsky, Zatec.

STYSHNOV, A.I. (selo Krakovo, Bashkirskaya ASSR).

Use of the stove chimney for a fume hood. Khim.v shkole no.5:63 S-0 '53.  
(MLR 6:9)  
(Chemical apparatus)

STYSHNOV, A.I. (st.Mrakov Bashkirskaia ASSR)

Experiments with honey and beeswax conducted in school chemical club.  
Khim.v shkole 11 no.4:59-61 Jl '56. (MLRA 9:9)  
(Chemistry--Study and teaching) (Honey) (Waxes)

STYSHNOV, A.I. (s.Mrakovo Bashkirskaya ASSR).

Extracurricular experiments pertaining to agriculture. Khim.v  
shkola 11 no.6:58-59 N-D '56. (MLRA 9:12)  
(Agricultural chemistry)

STYSHNOV, A.I.

Experiment on dehydrating properties of sulfuric acid. Khim. v  
shkole 12 no.2:51 Mr-Ap '57. (MLRA 10:3)  
(Sulfuric acid)

STYSHNOV, A.I. (s.Mrakovo Bashkirska ASSR); FORTUNATOV, S.P.(g.Pyatigorsk)  
MOLDAVER, T.I. (g.Berdsk); VOLKOV, V.; TRUSEV, L.G.

Letters from readers. Khim. v shkole 12 no.2:72-74 Mr-Ap '57.  
(MIRA 10:3)

1. Prepodavatel' khimii 112-y shkoly rabochey molodezhi (for Volkov)  
2.Uchitel' khimii Bytoshskoy sredney shkoly Dyat'kovskogo rayona  
Bryanskoy oblasti (for Trusev)  
(Chemistry--Study and teaching)

STYSHNOV, A.I. (selo Markovo Bashkirskoy ASSR)

Experiments with iodine in school. Khim. v shkole 12 no.5:64-65  
S-O '57. (MIRA 10:10)  
(Iodine--Study and teaching) (Chemistry--Experiments)

STYSIAK-DANILIWICZ, Zofia

Case of sensitization to acrylic dental prosthesis. Czasopismo  
stomat. 8 no.1:23-26 Jan 55

1. Z Zakladu Protetyki Stomatologicznej A.M.w Lodz. Kierownik:  
prof. dr J.Galasinska-Landebergerowa.

(DENTAL PROSTHESIS,  
acrylic, sensitization to)

(ALLERGY,  
to acrylic dent. prosthesis)  
(ACRYLIC RESINS, injurious effects,  
sensitization to acrylic dent. prosthesis)

STYSH, YE. A. K.

25E25

Voprosu Ob Intoxikatsii  
Sul'famidnymi Preparatami.  
Sbochnik po Rabot Lecheb. Uchrezhdeniy  
Mosk. Voen. Okr. Gor'kiy, 1948,  
S. 150-52

SO: LETOPIS NO. 30, 1948

STYSIN, YE. A.

25959 Stysin, Ye. A. Tri sluchaya abatsessa predstatel'noy zhelezny  
gematogenного proiskhozhdeniya. Sbornik nauch. rabot lecheb.  
uchrezhdeniy Mosk. Voyen. okr. Gor'kiy, 1948, s. 157-62.  
SO: Letopis' Zhurnal Statey, No. 30, Moscow, 1948

SARAYEVA, I.P.; STYSKINA, T.V.

New medical furniture. Med. prom. 15 no.3:49-51 Mr '61.  
(MIRA 14:5)

1. Nauchno-issledovatel'skiy institut eksperimental'noy khirurgicheskoy  
apparatury i instrumentov.  
(MEDICAL INSTRUMENTS AND APPARATUS)

BOBROV, B.S.; KRUCHINSKIY, G.V.; STYSKINA, T.V.

New instruments for cosmetic operations on the face. Sov.med. 26  
no.6:130-132 Je '62. (MIRA 15:11)

1. Iz Nauchno-issledovatel'skogo instituta eksperimental'noy  
khirurgicheskoy apparatury i instrumentov (dir. M.G.Anan'ev)  
i Instituta vrachebnoy kosmetiki (dir. - A.F.Akhabadze)  
Ministerstva zdravookhraneniya SSSR.  
(SURGICAL INSTRUMENTS AND APPARATUS) (FACE—SURGERY)

USSR / General Problems of Pathology. Tumors. Metabolism.

U-5

Abs Jour : Ref Zhur - Biol., No 10, 1958, No 46872

Author : Rodkina, B.S.; Stytsarkina, T. N.; Cherednichenko, L. M.  
Inst : Not given  
Title : The Antitoxic Function of the Liver in New Malignant  
Formations.

Orig Pub : Vrachebn. delo, 1956, No 12, 1273-1276

Abstract : The Quick test points to a weakening of the antitoxic  
function of the liver in the majority of cancer patients.  
Especially extensive changes were observed in cases of  
metastatic cancer.

Card 1/1

SZULKIN, Emma; KOWALCZYK, Maria; STYSZEWSKA, Hanna

Sermoucoid in viral hepatitis patients. Pol. tyg. lek. 19  
no. 32:1230-1232 10 Ag '64.

1. Z Oddzialu Chorob Wewnetrznych Instytutu Gruzlicy (kierowniki: prof. dr med. B. Jochweds,) z II Kliniki Chorob Zakaznych Akademii Medycznej w Warszawie (kierownik: prof. dr med. B. Kassur) i z Zakladu Chemii Klinicznej Instytutu Gruzlicy (kierownik: dr A. Wolanska).

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CIA-RDP86-00513R001653710015-2"

STYSIN, Ye.Ya.

Transportation of oils and fats in bulk. Masl.-zhir. prom.  
(MIRA 16:12)  
28 no. 7:47 0 '62.

GOLOVIZNIN, Vladimir Aleksandrovich; STYTS'KO, Petr Mitrofanovich;  
POD'YAKOV, A.S., red.; LARIONOV, G.Ye., tekhn. red.

[Labor input and cost of concrete work in hydraulic engineer-  
ing construction] Trudoemkost' i sebestoimost' betonnykh ra-  
bot v gidrotekhnicheskem stroitel'stve. Moskva, Gosenergo-  
izdat, 1962. 159 p. (MIRA 16:1)  
(Concrete construction) (Hydroelectric power stations)

POVARNITSYN, M.S.; STYTSYUK, V.I.

Designing infrared heaters with plane reflectors. Inzh.-fiz.  
zhur. 4 no.4:109-112 Ap '61. (MIRA 14:5)  
(Infrared rays--Industrial applications)

ROWINSKA, Ewa; SZULKIN, Emma; STYSZEWSKA, Hanna

Influence of the extent and dynamics of tuberculous changes and coexisting diseases on the seromucoid level in pulmonary tuberculosis patients. Gruzlica 33 no.9:749-757 S ' 65.

1. z Kliniki Chorob Płuc (Kierownik: doc. dr. P. Krakowska);  
z Kliniki Chorob Wewnętrznych (Kierownik: prof. dr. B. Jochweds)  
i z Zakładu Biochimii Klinicznej (Kierowniki: dr. A. Wolanska)  
Instytutu Gruziły.

L 45408-66 EWT(d)/T/EWP(1) IJP(c)

ACC NR: AR6016625

SOURCE CODE: UR/0044/65/000/012/V057/V057

23  
B

AUTHOR: Styuart, Dzh.

TITLE: Model of hearing

SOURCE: Ref. zh. Matematika, Abs. 12V399

REF SOURCE: Sb. Probl. bioniki. M., Mir, 1965, 291-307

TOPIC TAGS: mathematical model, model

ABSTRACT: A mathematical model is proposed for explaining such properties of the perception of the ear as the form of the dependence of the subjective amount of loudness on the actual amount, differential thresholds of perception, and also the effect of apparent change in loudness and frequency when noise is added to the signal. The assumptions under which this model was worked out include the following: The signal is assumed sinusoidal and the noise gaussian; the signal-to-noise ratio is large while the intensity of the signal itself is small. Moreover, the logarithmic derivative of the subjective loudness is assumed independent of the level of the signal (modification of Weber's law). On the basis of the theory which is developed, the author proposes several experimental methods dealing with estimates of the internal noise of a sensor system, of the parameters in the formula for subjective loudness, and also studies the possible properties of symmetry in the pattern of

UDC: 51:681.14:155

Card 1/2

ACCESSION NR: AP4026955

S/0258/64/004/001/0060/0068

AUTHORS: Galkina, A. P. (Novosibirsk); Kurshin, L. M. (Novosibirsk); Styatsyuk, V. I. (Novosibirsk)

TITLE: Stability of a heated fastened plate under displacement

SOURCE: Inzhenernyy zhurnal, v. 4, no. 1, 1964, 60-68

TOPIC TAGS: stability, heated plate, fastened plate, square plate, plane form of equilibrium, curved form of equilibrium, temperature stress, bifurcation deflection

ABSTRACT: The authors consider the case of instability of a curved form of equilibrium (caused by preliminary heating) in contrast to the usual formulation of plate stability problems involving instability of the plane form of equilibrium for a heated square plate with fastened contours under displacement. Graphical comparisons are made between experimental data and the numerical results derived in the paper. Orig. art. has: 6 figures and 31 formulas.

ASSOCIATION: none

Card 1/2

ACCESSION NR: AP4026955

SUBMITTED: 19Aug62

DATE ACQ: 15Apr64

ENCL: 00

SUB CODE: AP

NO REF Sov: 004

OTHER: 000

Card 2/2

SUBBOTA, M., slesar' (Prokhladnyy, Kabardino-Balkarskaya ASSR); POLYAKOV, I.,  
mekhanik (Sverdlovsk); KOLESNIK, G., elektróslesar' (Dnepropetrovsk);  
CHEKHOV, V. (Leningrad); KALIMOV, V. (Leningrad)

Conceived, achieved. Izobr.i rats. no.4:10 '64. (MIRA 17:4)

S/0049/64/000/003/0408/0413

ACCESSION NR: AP4030342

AUTHORS: Novikov, Ye. A.; Styuart, R. U.

TITLE: The intermittence of turbulence and the fluctuation spectrum of energy dissipation

SOURCE: AN SSSR. Izv. Ser. geofis., no. 3, 1964, 408-413

TOPIC TAGS: turbulence, intermittent turbulence, energy, energy dissipation, energy spectrum, fluctuation spectrum, Gaussian distribution, velocity field, third moment, fourth moment

ABSTRACT: The authors undertook this study because of the lack of information on the higher moments (above the second) of the velocity field in the study of turbulent flow. They have proposed a model of intermittent turbulence based on the fact that at large Reynolds numbers energy dissipation is concentrated at rather small isolated regions in the current. Within the framework of this model, the authors have computed the fluctuation spectrum of energy dissipation. The result is in qualitative agreement with experimental data. If the fluctuation spectrum is computed as the spectrum of the fourth moment of the velocity field . on the basis of

Card 1/2

ACCESSION NR: AP4030342

M. D. Millionshchikov's work (K teorii odnorodnoy izotropnoy turbulentnosti. Izv. AN SSSR, ser. geogr. i geofiz., No. 4, 5, 1941), then a positive exponent is obtained in the inertial interval of wave numbers. If the computations are based on S. Corrsin's view (Turbulent dissipation fluctuations. Phys. Fluids, 5, No. 10, 1962), that the dissipation is concentrated in thin layers within which the distribution probability is Gaussian, then the fluctuation spectrum exhibits a plateau-like form with a subsequent rise, in contradiction to experimental data. The authors thus conclude that the probability distribution for the velocity field in turbulent flow differs sharply from Gaussian, not only because the third moment differs from zero (because of transmission of energy between movements of different force) but also because of higher-order moments, in particular the fourth. Orig. art. has: 31 formulas.

ASSOCIATION: Akademiya nauk SSSR Institut fiziki atmosfery\* (Academy of Sciences  
SSSR Institute of Physics of the Atmosphere)

SUBMITTED: 29Jul63

DATE ACQ: 29Apr64

ENCL: 00

SUB CODE: AS

NO REF SOV: 007

OTHER: 007

Card 2/2

STYUFLAYEV, I. G.

STYUFLAYEV, I. G. -- "The Sowing Times of Millet in Voronezh Oblast."  
Min Higher Education USSR. Voronezh, 1956. (Dissertation for the  
Degree of Candidate in Agriculture Sciences).

So.: Knizhnaya Litopis', No. 7, 1956.

STYUMPKE, Kh. [Stuempke, Harald], prof., doktor; CHUK, V., kand.  
biologicheskikh nauk

"Structure and life of Rhinogradentia". Nauka i zhizn' 30  
no. 4:56-58, 82 Ap '63. (MIRA 16:7)

(Zoology—Anecdotes, facetiae, satire, etc.)

STYUNKEL', T. B.

USSR/Chemistry - Water Analysis

Mar 52

"New Indicators," T. B. Styunkel', D. A. Savinov-skiy, Engineers, Ye. M. Yakimets, Cand Tech Sci, Ural Polytech Inst imeni S. M. Kirov and Sverdlovenergo

"Iz v-s Teplotekh Inst" No 3, pp 22, 23

Presents characteristics of 3 indicators, giving color reactions with ions of Ca and Mg: acid chromogen black special YeT-00 ( $C_{20}H_{13}O_7N_3S$ ), acid chrome blue K ( $C_{16}H_9O_12N_2S_2Na_3$ ) and acid chrome dark blue ( $C_{16}H_{10}O_9N_2S_2Na$ ). Discusses use of these indicators for detn of water hardness.

216T5

CA

14

**Determination of low [water] hardness** D. A. Savinovskii, T. B. Styunkel, and B. M. Vakimets *Izvest. Vsesoyuz. Zashchitno-tekhnicheskogo Inst. im. Feliksa Dzerzhinskogo* 21, No. 2, 261 (1952). -- The method employs back-titration carried out at a pH of approx. 12.3. As buffer use a soln. contg. NaOH 10H<sub>2</sub>O 40 and NaOH 10 g./l. To a sample of analyzed water add a measured vol. of Triton B, then add the buffer soln., Eriochrome Black T (indicator), mix thoroughly, and titrate with a 5% soln. of a Mg salt. The end point is indicated by transition from green-azure to blue-blue. By this method hardnesses of 0.045-0.045\* were detd. Mn, Cu, and Zn interfere. M. Hirsch

STYUNKEL', T. . .

AID - P-78

Subject : USSR/Engineering  
Card : 1/1  
Authors : Styunkel', T. B., Eng., Savinovskiy, D. A., Eng., and  
Yakimets, M. E., Kand. of Eng. Sci., Sverdlovsk  
Title : New Water Hardness Indicators (Advice to Industrial  
Laboratories)  
Periodical : Izv. V.T.I., v. 21, #3, 22-23, Mr 1952  
Abstract : Determination of water hardness by the complexometric  
method is discussed. Compounds giving colored reaction  
to eriochromium black T are recommended for use. 3  
tables, 2 Russian references (1951-52).  
Institution : Urals Polytechnic. Inst. im. Kirov. Sverdlovsk Power  
Plant.  
Submitted : November 21, 1951

"APPROVED FOR RELEASE: 08/26/2000

CIA-RDP86-00513R001653710015-2

SAVITSCHNIY, D. A., VYKHODCEV, T. S., VAKHRECH, V. N., 1952.

Water - Analysis

Overall measuring method for determining the hardness of water. Elek. sta. 23 No. 6, 1952.

Monthly List of Russian Accessions, Library of Congress, November 1952. Unclassified.

APPROVED FOR RELEASE: 08/26/2000

CIA-RDP86-00513R001653710015-2"

STYUNKEL, T. B.

Analytical Abst.  
Vol. 1 No. 1  
Jan. 1954  
Biochemistry

(3) Ch. cm

166. Behaviour of certain cations in the complexone method of determining hardness of water. T. B. Styunkel, E. M. Yakimets and D. A. Savinovsky (*J. Anal. Chem., U.S.S.R.*, 1953, **8**, 163-167).— The behaviour of Ca, Mg, Zn, Mn, Cu, Al, and Fe towards Trilon B in presence of various indicators is discussed and methods of avoiding the effects of interfering ions in the determination of water hardness are described.

G. S. SMITH

SAVINOVSKIY, D.A., inzhener; STYUNKEL', T.B., kandidat tekhnicheskikh nauk;  
YAKIMETS, Ye.M., kandidat tekhnicheskikh nauk.

Overall measuring method for determining the hardness of water. Elek.sta.  
24 no.7:50 J1 '53. (MLRA 6:7)  
(Water--Analysis)

"APPROVED FOR RELEASE: 08/26/2000

CIA-RDP86-00513R001653710015-2

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED, AND BY USE OF THIS DOCUMENT, THE RECIPIENT AGREES TO FOLLOW THE SECURITY REQUIREMENTS FOR UNCLASSIFIED INFORMATION. IF THE  
Cu content is less than 0.01%, the sample is considered pure. If the Cu

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CIA-RDP86-00513R001653710015-2

APPROVED FOR RELEASE: 08/26/2000

CIA-RDP86-00513R001653710015-2"

STYUNKEL', T.B., kand.khim.nauk; YAKIMETS, Ye.M., kand.tekhn.nauk.

New method of determining calcium and magnesium hardness of water.  
Elek.sta.28 no.8:10-11 Ag '57. (MIRA 10:10)  
(Titration)

AUTHORS: Styurkel', T.B., Iakimets, Ye.M. 32-1-8/55

TITLE: Acid Chrome-Dark Blue and Chrome-Blue K as Indicators in the "Trilonometric" Determination of Calcium (Kislotnyy chromtemmosiny i kislotnyy chromsiniy K kak indikatory pri trilonometriceskem opredelenii kal'tsiya).

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol. 24, Nr 1, pp. 23-25 (USSR)

ABSTRACT: In this paper the suggestion is made that, for the determination of calcium and magnesium, the acid chrome-dark-blue and chrome-blue K be used instead of ammonium purpurate, and that this be done with a sample at pH values between 9 and 13. For the determination of calcium in the presence of magnesium, 10 mg-equiv. sodium hydroxide is introduced into the solution. Magnesium is precipitated, and at the same time the hydrogen ions formed are neutralized. If, after titration of the calcium, 10 mg-equiv. hydrochloric acid is added to the solution, the magnesium hydroxide is dissolved and the remaining lye remains neutralized. A surplus of acid remains in the solution, which is due to a complex compound of the calcium with trilon. If the acid is added to the indicator, the characteristic color of the latter will be bright pink. 5 ml of ammonia buffer solution is then added (pH≈10), after which the magnesium,

Card 1/2

Acid Chrome-Dark Blue and Chrome-Blue K as Indicators  
in the "Trilonometric" Determination of Calcium

32-1-8/55

(which has gone over into the solution) can be titrated with trilon. In the case of a higher magnesium content in the solution the magnesium hydroxide can absorb part of the calcium, which exercises a detrimental effect upon the result of the titration. In order to avoid this, sugar is added to the solution. This causes the well-soluble calcium saccharate to be formed, and titration of also small quantities of calcium can be carried out satisfactorily. (An example of the process of analysis is mentioned and two tables showing results are given). There are 2 tables and 5 references, 4 of which are Slavic.

ASSOCIATION: Ural Polytechnic Institute imeni S. M. Kirov (Ural'skiy  
politekhnicheskiy institut im. S.M. Kirova).

AVAILABLE: Library of Congress

Card 2/2 1. Calcium-Determination 2. Titration

STYUNKEL', T.B.; MIKHALEVA, Z.A.

Acid potassium chrome blue-black and acid potassium chrome blue  
as indicators in the trilonometric determination of lead. Trudy  
Ural.politekh.inst. no.96:159-160 '60. (MIRA 14:3)  
(Lead—Analysis)

STYUNKEL', T.B.; MIKHALEVA, Z.A.; VERSHININA, I.A.

Conditions for the preparation of silver tellurates. Zhur.  
neorg.khim. 7 no.12:2816-2817 D '62. (MIRA 16:2)

1. Ural'skiy politekhnicheskiy institut imeni Kirova.  
(Silver tellurate)

KALINICHENKO, I.T.; STYUNKEL', T.B.; MINIAUFVA, Z.A.; MIRMANOVNA,  
Ye.Ye.

Complexometric determination of zinc and nickel in niobium-silicon  
type alloys, in one batch. Trudy Ural.politek.inst. no.150.54.  
v. 1963. (NIPB 1710)

STYUNKEL', T.B.; SOKOLOVA, G.Ya.

Exchange reactions in the system  $K_2H_4TeO_6$  -  $MeCl_2$  -  $H_2O$ .  
Part 1. Study of the systems  $K_2H_4TeO_6$  -  $ZnCl_2$  -  $H_2O$  and  
 $K_2H_4TeO_6$  -  $CdCl_2$  -  $H_2O$ . Izv.vys.ucheb.zav.; khim.i khim.tekh.  
8 no.4:543-548 '65. (MIRA 18:11)

1. Kurganskiy mashinostroitel'nyy institut, kafedra obshchey  
khimii.

STYUOKHIN, B.P., starshiy prepodavatel'

Magnitude of the area of plastic-state contact caused by  
friction. Izv.vys.ucheb.zav.; mashinostr. no.10:7-15 '61.  
(MIRA 14:12)

1. Moskovskiy avtomekhanicheskiy institut.  
(Friction)

PHASE I

TRANSLATED BIBLIOGRAPHICAL REPORT

AID 295 - I

BOOK

Authors: STEIGMAN, L. S., Kand. Eng. Sci. and STYUSHIN, N. G., Kand. Eng. Sci.

Full Title: EFFECT OF VELOCITY OF CIRCULATION ON THE HEAT EXCHANGE DURING  
EVAPORATION

Transliterated Title: Vliyanie skorosti tsirculyatsii na teploobmen pri  
kipenii

Publishing Data

Originating Agency: Ministry of Heavy Machine Building Industry (Glavkotlotur-  
boprom). Central Scientific Institute on Boilers and Tur-  
bines (TsKTI). This is an article from series on teplopere-  
dacha i aerogidrodinamika (Heat Transmission and Aero-  
hydrodynamics). Book 21, #5, p. 59-82.

Publishing House: State Scientific and Technical Publishing House of Literature  
on Machine Building.

Date: 1951

No. of copies: 2,000

Editorial Staff

Editor: Prof. Gukhman, A. A., Dr. Phys.  
Math. Sci.

Tech. Ed.: None

Editor-in-Chief: Golovin, S. A., Eng.

Appraisers: None

Text Data

Coverage: The article deals with experiments on heat transmission from flat sur-  
faces and tubes to boiling liquid circulated with different rates.  
Two experimental installations of both types of surfaces are

1/2

Vliyanie skorosti tsirculyatsii na teploobmen pri kipenii

AID 295 - I

illustrated on 2 diagrams, 4 drawings, 21 charts and 3 tables, with heat transfer coefficients for different rates of circulation.

Curves and data presented appear to be interesting for students of heat transmission.

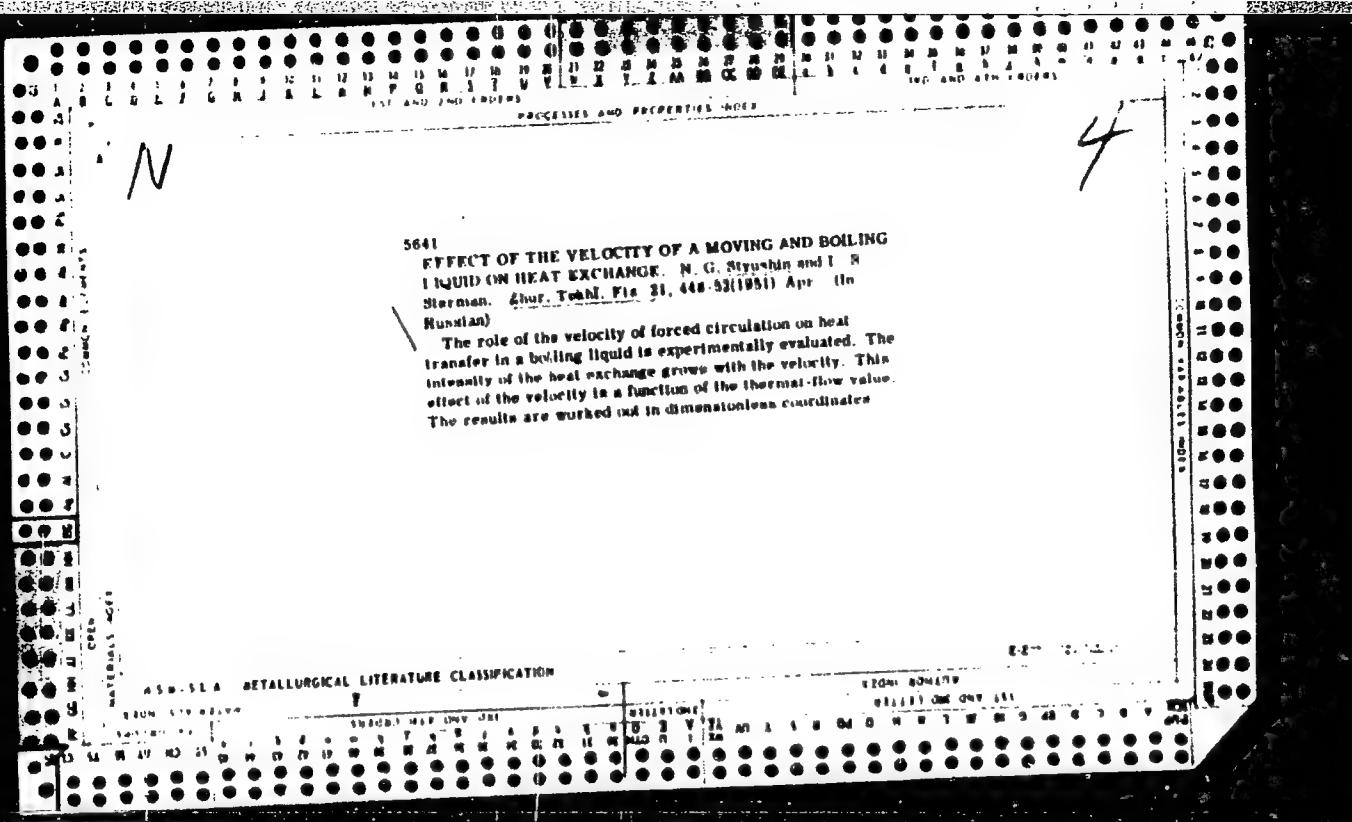
Purpose: The book is intended for workers in scientific research institutions and for design engineers in the field of heat installations.

Facilities: Central Scientific Institute for Boiler and Turbines. (TsKTI)

No. of Russian References: 16 (1941-50)

Available: Library of Congress

2/2



STYUSHIN, N. G.

Steam Boilers

Some relationships in the moisture removal process in steam boilers, Izv. AN SSSR Otd. tekhn. nauk, no. 3, 1952.

Monthly List of Russian Accessions, Library of Congress, October 1952. Unclassified.

USSR/Engineering - Heat exchange; High temperatures Mar 52

"Investigation of the Effect of the Circulation Rate on the Value of Critical Heat Flow During the Boiling of Liquid in Tubes," L. S. Sternan, N. G. Styushin

"Zhur Tekh Fiziki" Vol 22, No 3, pp 446-451.

States some branches of engineering now concerned with heat problems involving transfer of millions of large calories per hr from a square meter of surface. Describes results of experiments to establish dependence of critical heat flow and heat

244T74

flow at which there is transition from film boiling to turbulent boiling, on circulation rate. Uses isopropyl alcohol in special experimental setup. States problem significant for development of several special forms of power engineering equipment, for use of high- and superhigh-parameter steam, and for intensification of many forms of heat-exchange apparatus. Credits Prof A. A. Guikman, Dr Phys-Math Sci, for valuable assistance.

244T74

STYUSHIN, N. G.

Styushin, N. G.

USSR/Processes and Equipment for Chemical Industries--  
Processes and apparatus for chemical technology. K-1

Abs Jour: Ref Zhur-Khimiya, No 3, 1957, 10592

Author : Styushin, N. G.

Inst : Not given

Title : Investigation of the Effect of the Velocity of Liquids  
in Forced Convection on the Heat Transfer Characteristics  
During Boiling Under Pressure

Orig Pub: Zh. tekhn. fiziki, 1953, Vol 11, 1920-1930

Abstract: Results from experiments on the heat transfer during the  
forced convection of boiling water are presented. The  
flow velocity of the water was varied from 0.9 to 3.1  
m/sec, and the pressure from 1 to 4 atms. At low thermal  
loads on the heating surfaces the heat transfer process  
is controlled only by the forced convection of the liquid;  
at high thermal loads the controlling factor is the mass  
transfer.

Card 1/1

STERMAN, Lev Samoylovich, kandidat tekhnicheskikh nauk; STYUSHIN, N.G.  
retsenzent, kandidat tekhnicheskikh nauk; SHLYKOV, YU.P.  
redaktor, kandidat tekhnicheskikh nauk; MODEL', B.I.  
tekhnicheskiy redaktor

[Evaporators] Ispariteli. Moskva, Gos. nauchno-tekhn. izd-vo  
mashinostroit. lit-ry, 1956. 67 p. (MLRA 10:5)  
(Evaporating appliances)

*S. Styushin, N. G.*

USSR/Statistical Physics - Heat

D-4

Abs Jour : Referat Zhur - Fizika, No 5, 1957, 11475

Author : Sterman, L.S., Styushin, N.G., Morozov, V.G.

Inst :

Title : Investigation of the Dependence of the Critical Heat Flows  
on the Speed of Circulation.

Orig Pub : Zh. tekhn. fiziki, 1956, 26, No 10, 2323-2328

Abstract : Continuation of previous investigations (Sterman, L.S. and Styushin, N.G. Zh. tekhn. fiziki, 1952, 22, No 2) on the determination of the conditions of the change from bubble boiling to film boiling for ethyl alcohol and for water. New details of the instruments are the setup for measuring the flow of liquid. To the pressure drop before and after the measuring diaphragm, the author employs a tilted manometer, whose upper portion is filled with gas. The manometric liquid is the same liquid as used in the flow. New methods are used to establish the

Card 1/2

STYUSHIN, N. G.

"New results of studying heat-exchange in surface boiling."

Report presented at the 1st All-Union Conference on Heat- and Mass- Exchange,  
Minsk, RSFSR, 5-9 June 1961

32726  
S/671//61/000/000/001/003  
A059/A126

117430

AUTHOR: Styushin, N.G., Candidate of Technical Sciences

TITLE: Some rules governing vapor(gas)-liquid flow through unheated vertical tubes

PERIODICAL: Issledovaniya i raschety teploenergeticheskikh i energokhimicheskikh protsessov; sbornik statey; Gosudarstvennoye nauchno-tekhnicheskoye izdatel'stvo mashinostroitel'noy literatury, Moskva, 1961, 21 - 26

TEXT: In this paper the author demonstrates the mathematical calculation of various parameters. He cites methods developed by a number of other authors. Starting from the finding that the pressure drop in the liquid phase is equal to that in the vapor phase he gets for the cross section  $\varphi$  occupied by vapor and increased by phase velocity ratio  $w''_0 / w'_0$  at constant weight rate of liquid flow the equation

$$\varphi = f \left( \frac{w''_0}{w'_0}, Fr \right) \quad (4)$$

Card 1/ 3

32726  
S/671/61/000/000/001/003  
A059/A126

Some rules governing .....

where  $Fr$  is the Froude criterion. Proceeding from this equation, the author develops those for the internal friction force, the isothermal uniform two-phase liquid flow dependence and various other relations of  $\psi$ . From the methods suggested for the calculation of the true vapor-filled cross section of the tube during two-phase flow, the one developed by G.Ye. Kholodovskiy [Ref. 11: Issledovaniya i raschety yestestvennoy tsirkulyatsii v parovykh kotlakh (Studies and calculations of natural circulation in steam boilers), dissertation, 1955; Ref. 12: "Teploenergetika", no. 7, 1957] gives ambiguous results, and its principles are, moreover, not quite correct. Experimental values of  $\gamma$  obtained by S.M. Broderzon, O.M. Baldina, and A.R. Sorin [Ref. 7: "Sovetskoye kotloturbostroyeniye", no. 1 - 2, 1941], M.A. Styrikovich [Ref. 8: Gidrodinamika i teploobmen v kotlakh vysokogo davleniya (Hydrodynamics and heat exchange in high-pressure boilers), AN SSSR, Moskva, 1955], A.A. Armand and Ye.I. Nevstruyeva [Ref. 9: Izvestiya VTI, no. 2, 1950], A.M. Skvortsova [Ref. 13: Opredelnivye poleznykh naporov pri yestestvennoy tsirkulyatsii v vertikal'noy neobogrevayemoy trube (Determination of effective pressures on natural circulation in an unheated vertical tube)], and the author [Ref. 14: Tekhnicheskii otchet MO TsKTI (Technical report of the MO TsKTI), 1952] are

Card 2/3

N  
S/862/62/002/000/012/029  
A059/A126

AUTHOR: Styushin, I.G.

TITLE: New results of an investigation of the heat transfer on boiling in tubes

SOURCE: Teplo- i massoperenos. t. 2: Teplo- i massoperenos pri fazovykh i khimicheskikh prevrashcheniyakh. Ed. by A.V. Lykov and B.M. Smol'skiy. Minsk, Izd-vo AN BSSR, 1962. 114 - 119

TEXT: Several regions differing both with respect to the properties of the flow around the tube surface and to the intensity of heat exchange are established (Fig. 1), when the temperature variations of the wall and of the liquid in boilers are followed. In the region a, the temperature of the tube wall is below that of saturation, and the coefficient of heat transfer can, consequently, be calculated from the equations of convective heat transfer in a single-phase medium. On the right-hand side of the section KL, the tube surface is flowed around by a two-phase stream, since the wall temperature is higher than saturation temperature, and conditions are created for the formation of steam

Card 1/5

S/862/62/002/000/012/029

A059/A126

New results of an investigation of the heat ....

bubbles at the heated surface. Thus, surface boiling takes place in the regions b and v, and nucleate boiling in the region g. The temperature gradient is seen to be equal in the regions b and a which indicates that the heat-transfer intensity is not influenced by steam formation. In the region v, the temperature gradient decreases continuously, and the coefficient of heat transfer increases from the value  $\alpha_{\text{conv}}$  in the single-phase medium up to  $\alpha$  in nucleate boiling in the region of intense surface boiling in which the mass transfer due to the steam-forming process shows a substantial influence in the intensity of heat transfer. The intensity of heat transfer along the length of a boiler tube can be calculated from two formulas. Up to the section MN (Fig. 1), where the temperature of flow becomes equal to that of the onset of intense surface boiling to b. the coefficient of heat transfer can be calculated from:

$$Nu = 0.023 Re^{0.8} Pr^{0.4} \left( \frac{Pr}{Pr_w} \right)^{0.06} \quad (1)$$

and after the section MN from the equation:

$$\frac{Nu_{\text{boil}}}{Nu_{\text{b.b.}}} = 6,150 \left[ \frac{q}{r \gamma'' w} \left( \frac{\gamma''}{\gamma^1} \right)^{1.45} \left( \frac{r}{c_p T_s} \right)^{0.33} \right]^{0.7} \quad (2)$$

Card 2/5

S/862/62/002/000/012/029  
A059/A126

New results of an investigation of the heat ....

if the value of the complex in the square brackets is greater than  $0.4 \cdot 10^{-5}$ ; if it is smaller, the coefficient of heat transfer along the whole boiler tube is determined from formula (1). The variation of the flow temperature along the tube has to be considered. The limit of applicability of these formulas, i.e., the temperature of flow at which intense surface boiling sets in, is calculated from the critical equation:

$$\frac{1}{K} = 265 K_w^{1.2} Re^{0.2} Pr^{0.75} (\gamma''/\gamma')^{1.3}, \quad (3)$$

where  $K = r/c_p (t_{sat} - t_{o.b.})$ ;  $K_w = q/r \gamma'' w$ ;  $Pr = \nu/a$ ;  $Re = wd/\nu$ ;  $q$  is the specific heat flow,  $w$  the velocity of the liquid, and  $d$  the diameter of the tube. In general, the temperature  $t_{o.b.}$  can be calculated from the equation,

$$q = \alpha_{boil} (t_{wall} - t_{sat}) = \alpha_{conv} (t_{wall} - t_{o.b.}) \quad (4)$$

which is always correct when the temperature of flow equals  $t_{o.b.}$ . When  $q$  and  $w$  are given,  $\alpha$  is calculated from equation (2) for the boiling liquid, and then the temperature of the tube wall is calculated in the region of intense surface boiling. Subsequently, the temperature of the flow is chosen at which the value of  $\alpha_{conv}$  satisfies the equality:

Card 3/5

New results of an investigation of the heat ....

S/862/62/002/000/012/029  
A059/A126

$$q = \alpha_{\text{conv}} (t_w - t_{\text{o.b.}}). \quad (5)$$

L.S. Starman, A. Elinzon, Yu. Demin, V. Mushtayev, N.V. Tarasova, A.A. Armand, and A.S. Kon'kov are mentioned. There are 4 figures.

ASSOCIATION: Moskovskiy institut khimicheskogo mashinostroyeniya (Moscow Institute of Chemical Machinery)

Card 4/3

"APPROVED FOR RELEASE: 08/26/2000

CIA-RDP86-00513R001653710015-2

STYUSKIN, N. G.; VARSHNEY, B. S.; RYABININ, G. A.

"On some characteristics of heat transfer and of flow resistance in subcooled  
boiling."

paper submitted for 2nd All-Union Conf on Heat and Mass Transfer, Minsk, 4-12  
May 1964.

Moscow Inst of Chemical Apparatus.

APPROVED FOR RELEASE: 08/26/2000

CIA-RDP86-00513R001653710015-2"

SVORINA, G.M., inzh.; STYUSHIN, N.G., kand. tekhn. nauk

Relative motion of a steam phase during an adiabatic flow of a  
two-phase current in pipes. Teploenergetika 12 no.6:79-80 Je  
'65. (MIRA 18:9)

1. Moskovskiy institut khimicheskogo mashinostroyeniya.

ACC NR: AP6003459

(A)

SOURCE CODE: CZ/0077/65/000/010/0448/0449

AUTHOR: Suba, M. (Doctor of veterinary medicine)(Levice)

ORG: none

TITLE: Practical experience in the eradication of hoof and mouth disease in the Levice district

SOURCE: Veterinarstvi, no. 10, 1965, 448-449

TOPIC TAGS: ~~veterinary medicine, animal diseases, virus infections, infectious diseases, foot and mouth disease, disease control, epidemiology, vaccine~~

ABSTRACT: The article reviews practical experience in the eradication of hoof and mouth disease, and turns particular attention to the problem of limiting the spread of this infection amongst domestic farm animals in the winter months when they are likely to be crowded together. The case is cited of two foci of the disease becoming active in the winter months of December and January when the temperature was down to -18 to -20°C, and it is pointed out that in many cases the buildings used on many farms as livestock shelters were so arranged that the cattle, pigs and sheep were all crowded together, a condition not conducive to limiting the spread of infection. Reference is made

Card 1/2

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ACC NR AP6003459

to experience in the use of the monovalent vaccine of the strain O<sub>17</sub> and to a new bivalent vaccine, recently made available, which have been proved effective. It is concluded that the program of prophylactic and antiepidemic measures discussed has been proved effective in eradicating hoof and mouth disease from the Levice district.

SUB CODE: 0602/SUBM DATE: none

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40884-62 ENT(1)/ENT(m) IJP(c) JAJ/ME/GD

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AUTHOR: Styushin, N. G.; Varsney, B. S.

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ORG: Moscow Institute for Fabrication of Chemical Equipment  
(Moskovskiy institut khimicheskogo mashinostroyeniya)

E+1

TITLE: Characteristics of heat transfer in surface boiling

SOURCE: Teplo- i massoperenos. t. III: Teplo- i massoperenos pri fazovykh prevrashcheniyakh (Heat and mass transfer. v. 3: Heat and mass transfer in phase transformations). Minsk, Nauka i tekhnika, 1965, 52-59

TOPIC TAGS: convective heat transfer, heat transfer coefficient, boiling

ABSTRACT: The experiments were carried out with water in the following range of variation of the basic parameters: pressure--1.5 and 2.5 atmosphere (absolute); specific heat flux--125,000 to 800,000 kcal/m<sup>2</sup>-hr; circulation rate--1.2-2.5 meters/sec; underheating at the entry of the experimental tube--3-60°C. The experimental unit consisted of a closed loop made up of an experimental tube, a separator, a condenser, a circulating pump, a cooler, and a preheater. The article gives a diagram of the apparatus. Each series of experiments was done at fixed

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Card 2/2 111LT

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CZECHOSLOVAKIA

DANKOVA, D; STYLO, K.

1. Chair of Tuberculosis WHO (Mistralna tuberkulozu, UEL),  
Prague; Research Institute of Tuberculosis (Vyzkumny ustav tuberkulozu), Prague

Prague, Nemocnice v tuberkulozu, No 6-7, 1963, pp 421-425

"Relapses of Respiratory System Tuberculosis found During  
the 15 month Operation of the Epidemiological and  
Clinical Study of Tuberculosis in Czechoslovakia  
in Collaboration with WHO."